

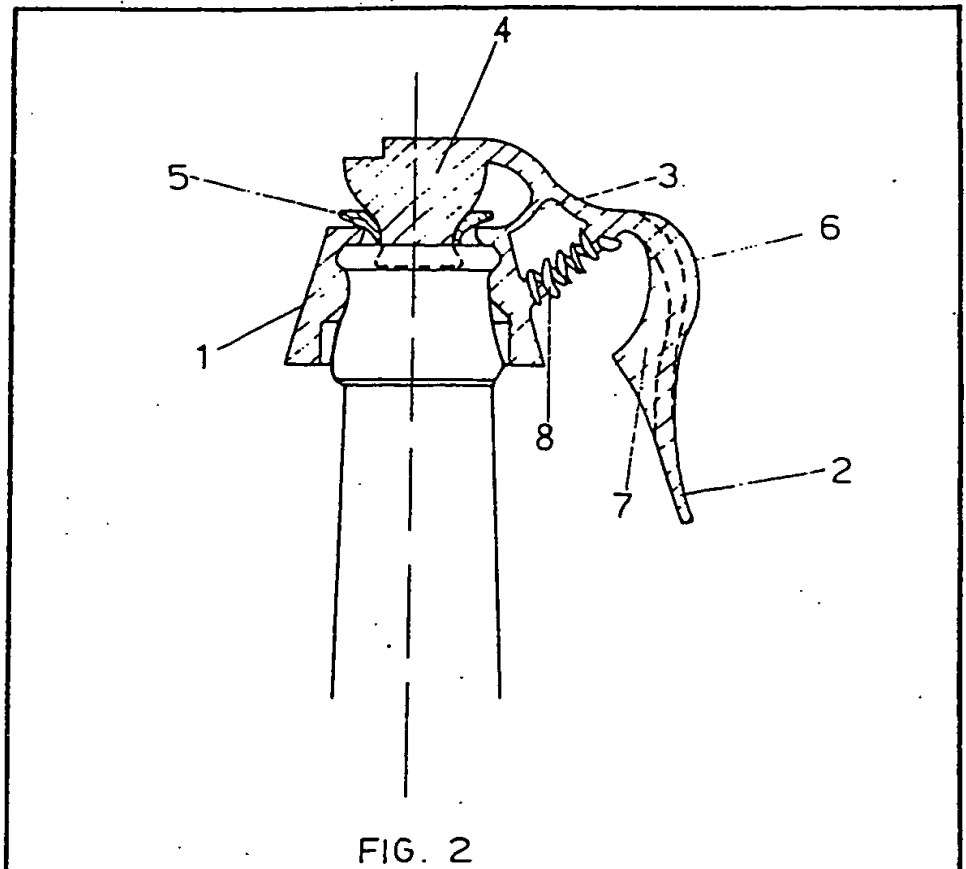
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(71) Applicant
Sergio Tontarelli, Via
Mordini Ciriaco 37,
Castelfidardo (AN), Italy
(72) Inventor
Sergio Tontarelli
(74) Agent
A. A. Thornton & Co.

(54) Closure Device for a Bottle

(57) A closure device for a bottle containing, for example, mineral water or fizzy drinks comprises a collar (1) adapted to be fitted about the neck of a bottle, a lever (2) carrying a stopper

(4) and pivotally mounted to the collar by a strip (3), and a spring (8) located between the lever and the collar for biasing the lever into its rest position and the stopper into the neck of the bottle. In use the bottle is opened by pivoting the lever towards the side of the bottle.



The drawing originally filed was informal and the print here reproduced is taken from a later filed formal copy.

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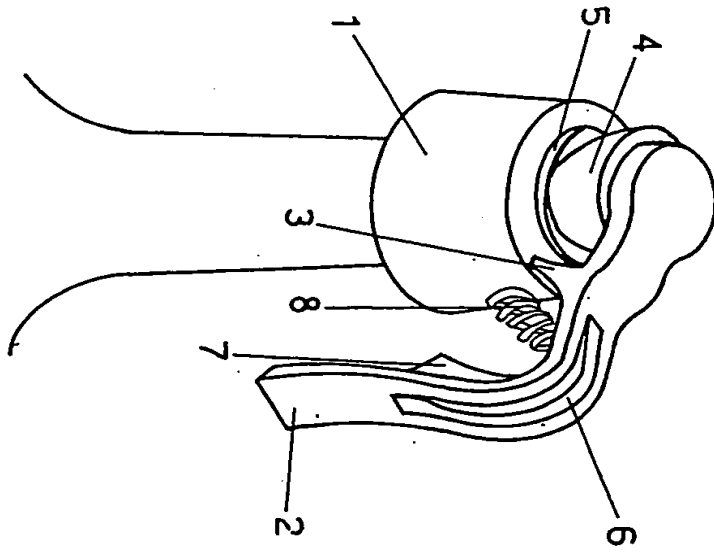


FIG. 1

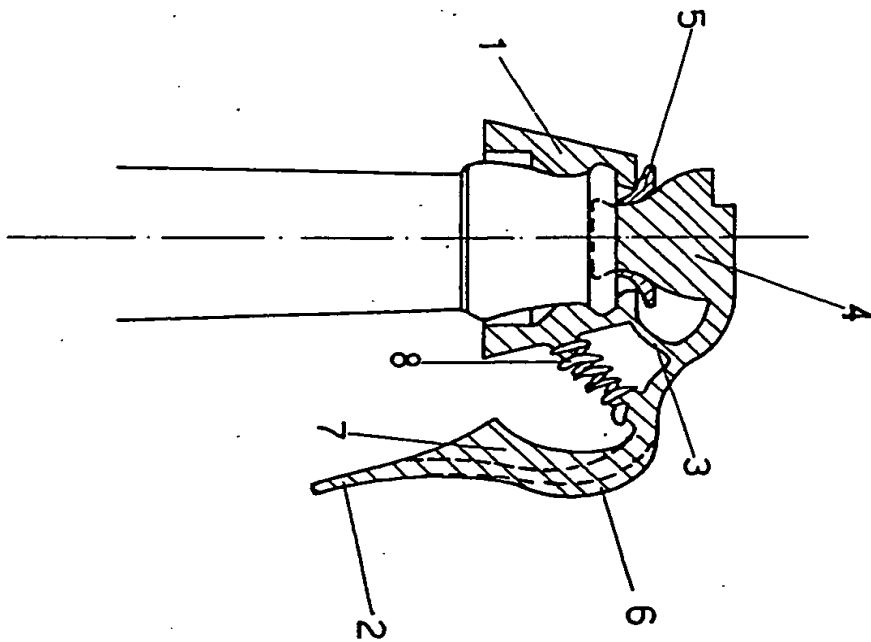


FIG. 2

SPECIFICATION Closure Device for a Bottle

The invention relates to closure devices for bottles which, for example, may contain mineral water or fizzy drinks.

The invention provides a closure device for a bottle comprising a stopper biased into a position for closing the neck of a bottle when the device is fitted thereto, and a lever biased into an pivotally movable from a rest position for causing the stopper to be removed from its closing position, the stopper readopting its closing position when the lever is released.

In order that the invention may be well understood an embodiment thereof will now be described, by way of example only, with reference to the accompanying drawings in which:

Figure 1 is a perspective view of a closure device applied to a bottle; and

Figure 2 is a longitudinal section through the closure device of Figure 1.

The closure device illustrated in the drawings comprises a collar 1, which is shown snap fitted about the neck of a bottle and a lever 2 which is pivotally mounted to the collar 1 by means of a relatively thin flexible strip 3. The lever 2 carries a stopper 4 at one end. The stopper 4 is shaped to seat in the neck of a bottle when it is in its closing position shown in the drawings. A rubber seal 5 is disposed about the stopper 4 to provide an air tight seal between the collar and the stopper 4 to prevent air or other gases escaping from the bottle.

The collar 1 has an external shape of a truncated cone towards the top and has a central bore formed therein. The internal surface of the bore is provided with an annular ridge substantially half way up, which ridge is surmounted by an annular recess adapted to receive by snap fitting a toroidal lip at the neck of the bottle. The material of the collar, preferably plastics, is sufficiently resilient to allow the collar to be fitted over the neck of the bottle with slight pressure. Strip 3 is joined at one end to the upper surface of the collar and at the other end to an intermediate point on the lever 2 to pivotally mount the lever 2 to the collar.

The lever 2 is shaped so as to be easily gripped by the hand. The end portion of the lever 2 opposite the stopper 4 extends substantially parallel to the axis of the neck of the bottle when the lever 2 is in its rest position as seen in the drawings. A central outer reinforcing rib 6 and an opposite internally facing inner reinforcing rib 7 are provided on the lever 2. The inner rib 7 also serves to provide means for limiting the movement of the lever in a clockwise direction, as seen in the drawings, by abutting with the external surface of the collar 1 at the clockwise limit of movement when the lever pivots about strip 3.

A spring means 8 acts between the lever 2 and the collar 1 to bias the lever 2 into its rest position and the stopper 4 into its closing position. The spring means 8 is mounted on lugs, one of which extends from the external surface of the collar below strip 3 and the other of which extends towards the first one from a position on the inner surface of lever 2 above rib 7.

To open a bottle to which the above described closure device has been fitted the lever 2 is compressed against the spring means towards the neck of the bottle in the palm of the hand, this causes stopper 4 to be pivoted about strip 3 clockwise out of the bottle. When the pressure on lever 2 is released the stopper 4 automatically pivots back under the action of spring means 8 into its closing position. This feature of the closure device prevents the bottle being inadvertently left open allowing the remaining contents such as mineral water or a fizzy drink to become flat. Whilst serving from the bottle the lever and the neck of the bottle may conveniently be held in one hand with the lever compressed to hold the stopper open.

The closure device apart from spring means 8 and rubber seal 5 may be formed from a one-piece moulding of plastics material.

Claims

1. A closure device for a bottle comprising a stopper biased into a position for closing the neck of a bottle when the device is fitted thereto, and a lever biased into and pivotally movable from a rest position for causing the stopper to be removed from its closing position, the stopper readopting its closing position when the lever is released.

2. A device as claimed in claim 1, wherein the device further comprises a collar adapted to be fitted about the neck of the bottle, the lever being pivotally mounted to said collar.

3. A device as claimed in claim 2, wherein an inner surface of the collar is provided with an annular ridge surmounted by an annular recess adapted to receive a lip disposed at the open neck of the bottle.

4. A device as claimed in claim 2 or 3, wherein the lever is pivotally mounted to an upper surface of the collar by means of a strip, said lever carrying the stopper at one end thereof and being shaped to facilitate being gripped and pivoted towards the bottle from its rest position to remove the stopper from its closing position.

5. A device as claimed in any one of claims 2 to 4, further comprising spring means acting between said lever and the collar for biasing the stopper into its closing position and the lever into its rest position.

6. A device as claimed in any one of the preceding claims, comprising plastics material.

7. A device as claimed in any one of the preceding claims further comprising a rubber seal

disposed about said stopper.

8. A closure device for a bottle substantially as

herein described with reference to the accompanying drawings.

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